APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/743,887	12/22/2003	Rana Dayal	1427/6	2161

25297   7590   07/12/2007
JENKINS, WILSON, TAYLOR & HUNT, P. A.
SUITE 1200, UNIVERSITY TOWER
3100 TOWER BOULEVARD
DURHAM, NC 27707

EXAMINER
LIU, BEN H

ART UNIT	PAPER NUMBER
2609	

MAIL DATE	DELIVERY MODE
07/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>*22 December 2003*</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-44* is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) _____ is/are allowed.

6)☐ Claim(s) *1-6,13,19-23 and 34-36* is/are rejected.

7)☒ Claim(s) *7-12,14-18,24-33 and 37-44* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some *   c)☐ None of:

         1.☐ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____.

         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Oath/Declaration

1.   The oath or declaration is defective. A new oath or declaration in compliance

with 37 CFR 1.67(a) identifying this application by application number and filing date is

required. See MPEP §§ 602.01 and 602.02.

      The oath or declaration is defective because: it is not signed and dated by the
applicants.

Claim Objections

2.   Claims 1-33 are objected because of the following informalities:

      In claim 1, it appears the phrase "a master mode" at the end of line 6 refers to the

"master mode" at the start of line 6. If that is the case, it is suggested that the applicant

change the phrase to "the master mode." Also in claim 1, it appears the phrase "a slave

mode" in line 15 refers to the "slave mode" in line 13. If that is the case, it is suggested

that the applicant change the phrase to "the slave mode." Claims 2-18 are objected since

they depend on claim 1.

      In claim 9, it appears the phrase "a canonical message" at the end of line 19 refers

to the "canonical message" recited in claim 8. If that is the case, it is suggested that the

applicant change the phrase to "the canonical message."

      In claim 10, it appears the phrase "a canonical message" in line 23 refers to the

"canonical message" recited in claim 8. If that is the case, it is suggested that the

applicant change the phrase to "the canonical message."

In claim 19, it appears the phrase "a switched network element" in line 13 refers

to the "switched network element" recited in line 11. If that is the case, it is suggested

that the applicant change the phrase to "the switched network element." Also in claim 19,

it appears the phrase "a slave mode" in line 18 refers to the "slave mode" recited in line

17. If that is the case, it is suggested that the applicant change the phrase to "the slave

mode." Claims 20-33 are rejected since they depend on claim 1.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-6, 13, 19-23, and 34-36 are rejected under 35 U.S.C. 102(e) as being

clearly anticipated by Larsen et al. (U.S. Patent Publication Number 2004/0047286).

For claims 1 and 34, Larsen et al. disclose a method and system for hitless switch

management module failover, the method comprising at a first switch management

module in a switch, operating in a master mode (see paragraph 27). Operating in the

master mode includes performing packet forwarding and participating in network

protocols (see paragraph 23), maintaining packet forwarding and protocol state

information (see paragraph 31), and communicating the packet forwarding and protocol state information to a second switch management module operating in a slave mode (see paragraph 35). The second switch management module in the switch operates in a slave mode (see paragraph 27), wherein operating in a slave mode includes continuously monitoring the operational state of the first switch management module (see paragraph 30), receiving the packet forwarding and protocol state information from the first switch management module (see paragraph 35), and in response to detecting failure of the first switch management module, switching to the master mode and resuming network protocol operation from a state in which the first switch management module last operated correctly based on the received packet forwarding and protocol state information (see paragraph 32).

For claim 2, Larsen et al. discloses the method for hitless switch management module failover wherein performing packet forwarding includes performing at least one of layer 2 and layer 3 packet forwarding (see paragraph 23).

For claim 3, Larsen et al. discloses the method for hitless switch management module failover wherein participating in network protocol includes participating in at least one of layer 2 and layer 3 network protocols (see paragraph 23).

For claims 4 and 36, Larsen et al. discloses the method and system for hitless switch management module failover wherein participating in layer 2 network protocols includes participating in a spanning tree protocol (see paragraph 53).

For claim 5, Larsen et al. discloses the method for hitless switch management module failover wherein maintaining packet forwarding information includes maintaining layer 2 packet forwarding tables (see paragraph 23).

For claim 6, Larsen et al. discloses the method for hitless switch management module failover wherein storing protocol state information includes storing layer 2 protocol state information (see paragraph 23).

For claim 13, Larsen et al. discloses the method for hitless switch management module failover wherein communicating the protocol state information to the second switch management module includes communicating the protocol state information in response to changes in the protocol state information (see paragraph 35).

For claim 19, Larsen et al. discloses a method for hitless software upgrade or downgrade in a switched network element comprising the following steps. The method comprises operating a first switch management module in a switched network element in a master mode, wherein operating in the master mode includes forwarding packets and participating in network protocols using a first software version (see paragraphs 23 and 69). The method also comprises operating a second switch management module in a slave mode, wherein operating in a slave mode includes monitoring the operational state of the first switch management module using the first software version (see paragraphs 30 and 69). The method further comprises storing a second software version in memory, rebooting the second switch management module using the second software version, and distributing protocol state and packet forwarding information from the first switch management module executing the first software version to the second switch management module executing the second software version (see paragraph 69). At the second switch management module, the method further comprises switching from operating in the slave mode to the master mode, wherein operating in the master mode includes starting packet forwarding and network protocol operations using the protocol

state and packet forwarding information received from the first switch management

module, thereby starting from the last correct network protocol operational state of the

first switch management module (see paragraphs 32 and 69).

For claim 20, Larsen et al. discloses the method for hitless software upgrade or

downgrade in a switched network element wherein operating the first switch management

module in the master mode includes performing layer 2 packet forwarding operations

(see paragraph 23).

For claim 21, Larsen et al. discloses the method for hitless software upgrade or

downgrade in a switched network element wherein participating in network protocols

using a first software version includes participating in layer 2 network protocols (see

paragraph 23).

For claim 22, Larsen et al. discloses the method for hitless software upgrade or

downgrade in a switched network element wherein participating in layer 2 network

protocols includes participating in a spanning tree protocol (see paragraph 53).

For claims 23 and 35, Larsen et al. discloses the method and system for hitless

software upgrade or downgrade in a switched network element wherein operating the

second switch management module in the slave mode includes storing the packet

forwarding and protocol state information received from the first switch management

module (see paragraph 35).

Allowable Subject Matter

4.   Claims 7-12, 14-18, 24-33, and 37-44 objected to as being dependent upon a

rejected base claim, but would be allowable if rewritten in independent form including all

of the limitations of the base claim and any intervening claims.

Conclusion

5.   The prior art made of record and not relied upon is considered pertinent tò

applicant's disclosure. Berg et al. (U.S. Patent 6674713) and Moberg et al. (U.S. Patent

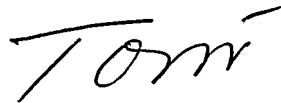6738826) are cited to show subject matter that is pertinent to the claimed inventions.

6.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Ben H. Liu whose telephone number is (571) 270-3118.

The examiner can normally be reached on Monday Through Friday 7:30AM to 5:00PM

EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Dang Ton can be reached on (571) 272-3171. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO

Customer Service Representative or access to the automated information system, call

800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BL

**DANG T. TON
SUPERVISORY PATENT EXAMINER**